

## **REMARKS**

In the outstanding Office Action, the Examiner rejected claims 17 and 19-21 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,842,587 to McGhan et al. (“McGhan”); and allowed claims 1, 3, 4, and 6-16.

By this amendment, Applicant has amended claims 6, 17 and 20. Claims 1, 3, 4, 6-17, and 19-21 remain pending in this application.

### **I. Allowable Subject Matter**

Applicant gratefully acknowledges the Examiner’s allowance of claims 1, 3, 4, and 6-16.

### **II. Rejection under 35 U.S.C. § 102(e)**

Regarding the Examiner’s rejection of claims 17 and 19-21 under 35 U.S.C. § 102(b), Applicant respectfully disagrees with the Examiner’s assertions and conclusions as set forth in the outstanding Office Action.<sup>1</sup> “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference ... [t]he identical invention must be shown in as complete detail as is contained in the . . . claim.” MPEP § 2131 8th Ed. (Rev. 4), October, 2005 (internal citations omitted). Because McGhan fails to teach each and every element recited in claims 17 and 19-21, Applicant respectfully traverses this rejection.

#### **A. Claims 17 and 19**

Claim 17, as amended, recites a combination including at least “means for digitally controlling a temperature of the laser module through direct bi-lateral communication between

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<sup>1</sup> The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicant declines to automatically subscribe to any statement of characterization in the Office Action.

the laser module and the temperature-controlling means,” (emphasis added). McGhan fails to teach at least this element.

McGhan teaches “a laser temperature control 15 uses feedback from a laser thermistor (not shown) to control the thermoelectric cooler current and achieve that laser temperature setpoint.” McGhan, col. 3, line 67 - col. 4, line 3. McGhan, however, does not teach the laser temperature control 15 digitally controls the thermoelectric cooler current to achieve a specific laser temperature setpoint.

Applicant further submits that McGhan not only fails to teach “digitally controlling a temperature of the laser module,” as recited in amended claim 17, but also does not suggest such a combination. For example, Figures 4B, 5A, and 5B of McGhan suggest, in general, analog only control. Further to Figures, 4B, 5A, and 5B McGhan also states “the modulator bias voltage is then swept over the range of  $\pm V_{\pi}$  in order to find the dc bias voltage ... [t]he SOA bias current is gradually increased until the optical power out of the laser/SOA is sufficient to lock the laser wavelength to the wavelength reference.” McGhan, col. 6, lines 7-9, 21-24 (emphasis added). McGhan thus only teaches or suggests analog control.

Furthermore, in view of the above statements concerning McGhan’s use of analog only control, it is apparent that even in order to “digitally control[] a temperature of the laser module,” McGhan would need to, at the very least, incorporate an analog-to-digital converter in laser temperature control 15. Applicant respectfully submits that there is no suggestion in McGhan, nor any motivation for modifying McGhan in such a manner, as it would increase the overall cost and size of the laser temperature control 15 of McGhan.

Accordingly, for at least the foregoing reasons, Applicant respectfully submits that McGhan fails to teach a combination including at least “means for digitally controlling a

temperature of the laser module through direct bi-lateral communication between the laser module and the temperature-controlling means,” as recited in amended claim 17. Because McGhan fails to teach each and every element recited in claim 17, McGhan cannot anticipate claim 17. Claim 17 is thus allowable over McGhan, and claim 19 is allowable over McGhan at least due to its dependence on claim 17.

B. Claims 20 and 21

Claim 20, as amended, recites a combination including at least “a temperature controller configured to digitally control the temperature of the laser module.” As discussed above, McGhan fails to teach a combination including “digitally controlling the temperature.” Accordingly, claim 20 is allowable for at least the same reasons given above with respect to claim 17, and claim 21 is allowable at least due to its dependence on claim 20.

Applicant therefore respectfully requests that the Examiner withdraw the rejection of claims 17 and 19-21 under 35 U.S.C. § 102(e).

**Conclusion**

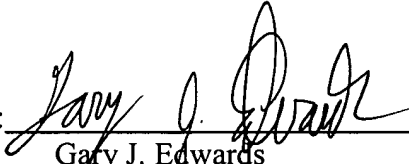
In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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